

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Snodgrass, et al.

App. No. : 09/876,611

Filed : June 7, 2001

For : IDENTIFYING AND
PROVIDING TARGETED
CONTENT TO USERS HAVING
COMMON INTERESTS

Examiner : John Van Bramer

Confirmation No.: 9007

REPLY BRIEF

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This Reply Brief is submitted under 37 C.F.R. 41.41 to address certain new issues raised in the Examiner's Answer. The arguments presented herein are intended to supplement, and not replace, the arguments presented in the Appeal Brief.

1. Rejection of Claims 46 and 59 under 35 U.S.C. § 112, second paragraph

Claims 46 and 59 stand rejected under 35 U.S.C. § 112, second paragraph, as “being incomplete for omitting essential steps, such steps amounting to a gap between the steps.”

Claim 46

Claim 46 depends from Claim 38. Both claims are reproduced below:

38. A computer-implemented method, comprising:

tracking referrals of users from each of a plurality of referring web sites to a target web site that hosts an electronic catalog of items, said referrals resulting from user selections of links provided on the referring web sites;

identifying a group of users referred to the target web site by a selected subset of said plurality of referring web sites, said group of users comprising a plurality of users, and representing a subpopulation of a general user population of the target web site;

collecting user activity data reflective of preferences of particular users for particular items represented in the electronic catalog of items, said user activity data encompassing actions of both members and non-members of said group of users;

identifying a set of items that correspond to group preferences of said group of users, wherein the set of items is identified based on the collected user activity data of both the members and the non-members of said group of users; and

causing the set of items to be displayed (a) on the target web site to users who are referred thereto from a referring web site in said subset of referring web sites, and/or (b) on a referring web site in said subset of referring web sites.

46. The method of Claim 38, wherein the method comprises causing the set of items to be displayed on a referring web site in said subset.

The Examiner’s Answer asserts that Claim 46 lacks an “essential step” in which “the user is sent back to the referring site” from the target site. See Examiner’s Answer at page 11, lines 1-15. Appellants respectfully submit that this assertion is based on an improper reading of the claims. Specifically, the Examiner apparently construes Claim 46 to require that the “set of items”

be displayed on a referring web site to a user who has been referred to, and has then returned from, the target site. However, nothing in Claim 38 or 46 requires this. To the contrary, Claim 46 encompasses scenarios in which the set of items is displayed on a referring web site to a user who has never visited the target web site.

The erroneous construction appears to be based on the following recitation in Claim 38: “tracking referrals of users from each of a plurality of referring web sites to a target web site.” While this language requires *some* users to be referred to the target web site, it does not require this of the user or users to whom the “set of items [is] displayed on a referring web site.”

Indeed, a significant benefit of the method of Claim 1 is that it enables items to be recommended to a user who is unknown to or unrecognized by the target web site—as would ordinarily be the case if the user has not previously accessed the target web site. See present application at, e.g., page 32, lines 17-21. This benefit is achieved in-part by analyzing actions of users who *have* been referred to the target site. See Claim 38. As discussed in the Appeal Brief and further explained below, the applied references do not provide this benefit.

Because Claim 46 does not require the “set of items” to be displayed to a user who has accessed the target web site, the claim does not omit an “essential step” of sending a user back to the referring web site. Thus, the rejection under section 112, second paragraph, is improper.

Claim 59

Appellants respectfully submit that the rejection of Claim 59 under section 112, second paragraph, is improper for substantially the same reason. Specifically, contrary to the Examiner’s Answer, nothing in Claim 59 (or Claim 53 from which it depends) requires the set of items to be displayed to a user who has been referred to the target site. Thus, the claim does not omit an “essential step” of sending a user back to the referring site.

2. Rejection of Claims 38-65 under 35 U.S.C. § 103(a) over Aggarwal in view of Zaiane

Claims 38-65 stand rejected under 35 U.S.C. § 103(a) over Aggarwal (U.S. Patent No. 6,356,879) in view of Zaiane.

The Examiner's Answer raises several new issues with respect to independent Claim 38. The primary issues are addressed below under respective headings. Appellants submit that the other claims and issues discussed in the Examiner's Answer are fully briefed in Appellants' Appeal Brief.

I. Clustering based on interactions with multiple sites

The Examiner's Answer asserts that Aggarwal does not merely teach the clustering of users based on their behaviors on the e-commerce site, but also teaches clustering based on users' interactions with other web sites. The Examiner's Answer bases this assertion primarily on Aggarwal's reference to a "current online session" at col. 2, lines 49-64. Examiner's Answer at page 12, last paragraph and page 13, entire page (note that Claim 38 is misidentified as "claim 35" on page 12).

Nothing in Aggarwal, however, suggests clustering users based on their interactions with multiple web sites. To the contrary, Aggarwal makes clear that the clustering is performed based on user interactions with products available "at the e-commerce site." See Aggarwal at, e.g., col. 3, lines 59-64; col. 4, lines 55-57; and col. 4, line 60-64. In this regard, Aggarwal apparently uses the term "the current browsing session" to refer to the user's interaction with the e-commerce site, and not interactions with other sites.

In addition, Aggarwal contains no disclosure whatsoever of *how* the necessary information about users' interactions with other web sites could be obtained and incorporated into the clustering process. In this regard, Aggarwal's clustering process uses both (1) the identities of the products browsed and/or purchased by the users, and (2) textual descriptions of these products. Yet nowhere does Aggarwal explain how such information could be obtained with respect to products browsed or purchased on other web sites. Had Aggarwal et al. intended to teach clustering based on users' interactions with products on multiple web sites, they would have at least addressed this non-trivial problem.

In connection with this issue, the Examiner's Answer asserts that a user's browsing behavior across the Internet can be logged "via the old and well known techniques of tracking cookies and invisible GIFs." Examiner's Answer at page 13, lines 1-5. This assertion, however, is not supported by Aggarwal or the other art of record. In addition, it does not explain how the particular types of information used by Aggarwal for clustering could be obtained.

The Examiner's Answer also points to a patent application (now pat. no. 6,307,965) that is incorporated by reference in Aggarwal. Nothing in the incorporated-by-reference application/patent, however, suggests incorporating information about user interactions with other web sites into Aggarwal's clustering process.

In view of the foregoing, the recitation of a "current online session" in Aggarwal is not a teaching or suggestion to cluster users based on their interactions with multiple web sites.

II. Providing recommendations to a new user

In the Appeal Brief, Appellants asserted that Aggarwal's method is incapable of providing recommendations to a new user of the e-commerce site when the new user is first referred thereto. This is because the new user apparently must browse or purchase products on the e-commerce site before recommendations can be made. Appeal Brief at page 7, last paragraph to page 8, line 3.

According to the Examiner's Answer, this contention is inconsistent with Figure 5 of Aggarwal, and particularly step 505. In fact, the referenced portion of Aggarwal supports Appellants' contention. Specifically, steps 505 and 510 of Figure 5 reveal that recommendations cannot be provided to a user unless/until "product characterizations" are available for products browsed and/or purchased by the user. When a new user is first referred to the e-commerce site, no such product characterizations would be available, and thus no recommendations could be made.

Aggarwal's system may possibly be able to provide meaningful recommendations to the new user later on during the same browsing session with the e-commerce site—particularly if the user browses and/or purchases products during that session. However, this is not the same as providing meaningful recommendations when the new user is first referred to the e-commerce

site. Indeed, the failure to provide meaningful recommendations at the outset can cause the user to quickly navigate away from the newly discovered site.

III. The proposed combination would not operate as claimed

The Examiner's Answer also takes issue with Appellants' assertion that the combination of Aggarwal and Zaiane would not operate as claimed. According to the Answer, Aggarwal uses both browsing behavior and product purchases in determining peer clusters, and Zaiane's referring web site information would be considered part of Aggarwal's browsing behaviors. Examiner's Answer at page 15, last paragraph. The references, however, do not teach *how* such referring web site information can be incorporated into Aggarwal's clustering process.

Indeed, Aggarwal clusters users based on characterizations of products browsed and/or purchased by the users. Yet no such characterizations are obtained through the tracking of web site referrals as in Zaiane. Thus, it is not clear from the references how Zaiane's referring web site information could be incorporated into Aggarwal's clustering process.

Thus, even if Aggarwal and Zaiane were somehow combined, the combined system would not fall within the scope of the claim.

CONCLUSION

For the reasons explained in the Appeal Brief and the additional reasons provided above, Appellants respectfully submit that the rejections of Claims 38-65 are improper, and request that these rejections be reversed.

Respectfully submitted,

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